

WHAT IS CLAIMED IS:

1. A wireless communication device capable of a connectionless oriented broadcast comprising:
  - a transceiver for transmitting and receiving data to and from an external device;
  - a synchronization information generator for generating a broadcast data packet containing broadcast information; and
  - a controller for broadcasting the synchronization information through the transceiver and synchronizing to the external device, and then controlling to transmit the broadcast data packet to the external device through the transceiver.
2. The device of claim 1, wherein the synchronization information and the broadcast data packet are respectively transmitted through a beacon window and a broadcast window.
3. The device of claim 2, wherein the synchronization information is transmitted by an extended identifier (EID) packet.
4. The device of claim 3, wherein the EID packet contains a dedicated inquiry access code (DIAC), a Bluetooth device address and clock information.

5. The device of claim 4, wherein the EID packet further contains a setup information of the broadcast window.

6. The device of claim 5, wherein the broadcast window setup information contains at least one of an offset slot, a size of the broadcast window and a broadcast repetition number.

7. The device of claim 2, wherein the broadcast data packet contains a class of the broadcast information, a packet size and a payload.

8. The device of claim 1, wherein the transceiver transmits and receives the data with the external device by using a Bluetooth protocol.

9. A wireless communication method capable of a connectionless oriented broadcast comprising:

generating synchronization information for synchronizing with an external device and a broadcast data packet containing broadcast information;

broadcasting the synchronization information and synchronizing a channel with the external device; and

transmitting the broadcast data packet to the external device.

10. The method of claim 9, wherein the synchronization information and the broadcast data packet are respectively transmitted through a beacon window and a broadcast window.

11. The method of claim 10, wherein the synchronization information is transmitted by an extended identifier (EID) packet.

12. The method of claim 11, wherein the EID packet contains a dedicated inquiry access code (DIAC), a Bluetooth device address and clock information.

13. The method of claim 12, wherein the EID packet further contains setup information of the broadcast window.

14. The method of claim 13, wherein the broadcast window setup information contains at least one of an offset slot, a size of the broadcast window and a broadcast repetition number.

15. The method of claim 10, wherein the broadcast data packet contains a class of the broadcast information, a packet size and a payload.

16. The method of claim 9, wherein, in synchronizing the channel and transmitting the broadcast data packet to the external device, the broadcast data packet is transmitted to and received from the external device by using a Bluetooth protocol.

17. A wireless communication method capable of a connectionless oriented broadcast comprising:

(a) generating synchronization information for synchronizing with more than one receiver, and a broadcast data packet containing broadcast data;

(b) broadcasting the synchronization information and synchronizing a channel with a receiver;

(c) transmitting the broadcast data packet to the synchronized receiver;  
and

(d) executing a connection window for a connection setup with the receiver that requests to be connected.

18. The method of claim 17, wherein the step of executing the connection window comprises:

receiving a link management protocol (LMP) message from the receiver that requests to be connected; and

exchanging a POLL packet with the receiver and setting up the connection.

19. The method of claim 17, wherein the synchronization information and the broadcast data packet are respectively transmitted through a beacon window and a data window.

20. The method of claim 19, wherein the synchronization information is transmitted by a broadcast identifier (BID) packet.

21. The method of claim 20, wherein the BID packet contains a Bluetooth device address (BD\_ADDR) and clock information.

22. The method of claim 21, wherein the BID packet further contains at least one of a configuration of the data window, a position of the connection window and an error check.

23. The method of claim 22, wherein the configuration of the data window contains at least one of an Asynchronous Connectionless (ACL) packet type, a repetition number, a broadcast profile and an offset of data.

24. The method of claim 17, wherein the broadcast data packet is transmitted to and received from the receiver by using a Bluetooth protocol.